Amendments to the Specification

Please replace the paragraph on page 1, under the title with the following amended paragraph:

~~CROSS-REFERENCE TO~~ RELATED APPLICATIONS~~S~~

This application ~~claims the benefit under 35 U.S.C. §120~~ is a continuation of U.S. ~~Serial~~ Application No. 09/147,919, filed March 23, 1999, the contents of which are hereby incorporated by reference into the present disclosure.

Please replace the paragraph at page 14, lines 8 through 35 and continued on page 15, lines 1 through 8 with the following amended paragraph:

To allow the generation of recombinant MVA viruses, novel vector plasmids were constructed. Insertion of foreign genes into the MVA genome was targeted precisely to the site of the naturally occurring deletion II in the MVA genome. Sequences of MVA DNA flanking the site of a 2500 bp deletion in the HindIII N fragment of the MVA genome (Altenburger, W., Suter, C.P. and Alternburger, J. (1989), *J. Arch. Virol. 105*, 15-27) were amplified by PCR and cloned into the multiple cloning site of plasmid pUC18. The primers for the left 600 bp DNA flank were 5'-CAG CAG *GGT ACC* CTC ATC GTA CAG GAC GTT CTC-3' (SEQ ID NO. 1) and 5'-CAG CAG *CCC GGG* TAT TCG ATG ATT ATT TTT AAC AAA ATA ACA-3' (SEQ ID NO. 2) (sites for restriction enzymes KpnI and SmaI are ~~underlined~~ italicized). The primers for the right 550 bp DNA flank were 5'-CAG CAG *CTG CAG* GAA TCA TCC ATT CCA CTG AAT AGC-3' (SEQ ID NO. 3) and 5'-CAG CAG *GCA TGC* CGA CGA ACA AGG AAC TGT AGC AGA-3' (SEQ ID NO. 4) (sites for restriction enzymes PstI and SphI are ~~underlined~~ italicized). Between these flanks of MVA DNA inserted in pUC18, the *E. coli* lacZ gene under control of the vaccinia virus late promoter P11 (prepared by restriction digest from pIII LZ, Sutter, G. and Moss, B. (1992) *PNAS USA 89*, 10847-10851) was inserted, using the BamHI site,

to generate the MVA insertion vector pUCII LZ. In the following, a 289 bp fragment containing the vaccinia virus early-late promoter P7.5 together with a SmaI site for cloning (prepared by restriction digest with EcoRI and XbaI from the plasmid vector pSC11 (Chakrabarti, *et al.* 1985, *Molecular and Cellular Biology 5*, 3403-3409)) was inserted into the SmaI site of pUCII LZ to give the MVA vector pUCII LZ P7.5 ~~(Figure 1A)~~. To construct a vector plasmid that allows isolation of recombinant MVA viruses via transient synthesis of the reporter enzyme β-galactosidase a 330 bp DNA fragment from the 3' end of the *E. coli* LacZ open reading frame was amplified by PCR (primers were 5'-CAG CAG GTC GAC CCC GAC CGC CTT ACT GCC GCC-3' (SEQ ID NO. 5) and 5'-GGG GGG CTG CAG ATG GTA GCG ACC GGC GCT CAG-3' (SEQ ID NO. 6)) and cloned into the SalI and PstI sites of pUCII LZ P7.5 to obtain the MVA vector pUCII Lzdel P7.5 ~~(Figure 1B)~~. Using the SmaI site, this vector plasmid can be used to insert DNA sequences encoding a foreign gene under transcriptional control of the vaccinia virus promoter P7.5 into the MVA genome. After the desired recombinant virus has been isolated by screening for expression of β-galactosidase activity further propagation of the recombinant virus leads to the self-deletion of the reengineered P11-LacZ expression cassette by homologous recombination.

Please replace the paragraph at page 15, lines 9 through 16 with the following amended paragraph:

For and alternative vector plasmid, pUCII sPi ~~(Figure 1C)~~, instead of the P11-LacZ expression cassette and the P7.5 promoter a vaccinia specific synthetic promoter (prepared by a HindIII/PstI restriction digest from pIIIgpt-sP (Sutter *et al.*, *Vaccine*, 1994, *12*:1032 and blunted) was inserted between the flanks adjacent to the deletion II. Therefore the P11-LacZ expression cassette and the P7.5 promoter was deleted from the plasmid pUCII LZ P7.5 by a XhoI/Bpu1102 restriction digest, the vector fragment was blunted and ligated to the also blunted fragment carrying the synthetic promoter sP.

Please replace the paragraph at page 16, lines 26 through 33 and continued on page 17, lines 1 through 4 with the following amended paragraph:

A cDNA fragment containing codons for start and stop of translation and encoding 326 amino acids of Dengue virus type 2, New Guinea C (NGC) strain (nucleotides 768-1733, Gruenberg, *et al.,* 1988, *J. Gen. Virol. 69*:1391-1398) comprising a signal sequence of 31 amino acids preceding Dengue glycoprotein E, all 295 amino acids of domain I and II of glycoprotein E, but missing 202 amino acids of domain III from the C-terminal part of glycoprotein E, was isolated by PCR from cloned cDNA of Dengue virus type 2 NGC strain (Gruenberg, *et al., J. Gen. Virol. 69*:1391-1398, 1998) using the oligonucleotides 5'-CAG CAG CCC GGG ATG GCA GCA ATC CTG GCA TAC ACC-3' (SEQ ID NO. 7) and 5'-CAG CAG CCC GGG TCA CTG TAG TTT GTC CAT CCT CAG CCT-3' (SEQ ID NO. 8) as primers.

Please replace the paragraph at page 17, lines 24 through 35 with the following amended paragraph:

A cDNA fragment containing codons for start and stop of translation and encoding 326 amino acids of Dengue virus type 2, New Guinea C (NGC) strain (nucleotides 768-1733, Gruenberg, *et al.,* 1988, *J. Gen. Virol. 69*:1391-1398) comprising a signal sequence of 31 amino acids preceding Dengue glycoprotein E, all 295 amino acids of domain I and II of glycoprotein E, but missing 202 amino acids of domain III from the C-terminal part of glycoprotein E, was isolated by PCR from cloned cDNA of Dengue virus type 2 NGC strain (Gruenberg, *et al., J. Gen. Virol. 69*:1391-1398, 1988) using the oligonucleotides 5'-CAG CAG CCC GGG ATG GCA GCA ATC CTG GCA TAC ACC-3' (SEQ ID NO. 7) and 5'-CAG CAG CCC GGG TCA CTG TAG TTT GTC CAT CCT CAG CCT-3' (SEQ ID NO. 8) as primers.

Please delete the paragraph at page 11, lines 1 through 19; which starts with "Figure 1: MVA vector plasmids for insertion of foreign DNA by homologous recombination into deletion II".

Please delete the paragraph at page 11, lines 20 through 24; which starts with "Figure 2: Construction of insertion plasmid carrying T7 polymerase".